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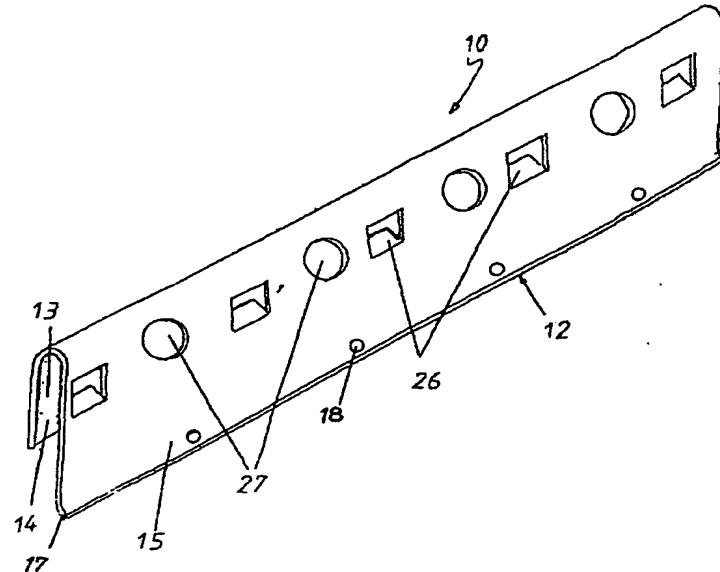
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(54) Title: GUTTERING



(57) **Abstract:** A mounting bracket for a gutter (20) for buildings, the gutter including a generally channel or trough shaped body for collecting water with an internal wall (23) having mounting means (24) thereon, the mounting bracket including an elongated bracket body which includes an attachment section (14) which is attachable to the building and a gutter mounting section (15), the gutter mounting section including a plurality of gutter support elements (26) arranged along the gutter mounting section and aligned so as to correspond to a fall required when the gutter is in an installed position.

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GUTTERING

This invention relates generally to guttering for buildings and the like and to components therefor.

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One form of currently known guttering includes a channel shaped body which is adapted to be mounted to a building by a series of separate support brackets. A problem associated with existing guttering is that it is a relatively time consuming task to mount the guttering to the building because of the requirement that the guttering has a proper fall enabling water in the guttering to be directed to the down pipe. This requires the setting of a string line at the desired fall angle and thereafter mounting brackets correctly so that the channel will follow the fall line.

It is an object of present invention to provide improvements to guttering which
alleviates one or more of the aforementioned disadvantages.

According to one aspect of the present invention there is provided a mounting bracket for a gutter for buildings, the gutter including a generally channel or trough shaped body for collecting water with an internal wall having mounting means thereon, the mounting bracket including an elongated bracket body which includes an attachment section which is attachable to the building and a gutter mounting section, the gutter mounting section including a plurality of gutter support elements arranged along the gutter mounting section and aligned so as to correspond to a fall required when the gutter is in an installed position.

25

In one preferred form, the elongated bracket body includes a generally U-shaped portion one leg thereof being the attachment section and the other leg thereof being the gutter mounting section. Preferably, the legs of the U-shaped portion are spaced apart so as to provide a recess therebetween for receiving part of the internal wall of the gutter therein when the gutter is in the installed position.

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The gutter support elements may, in one form include projections which extend into the recess and are adapted to cooperate with the mounting means on the internal wall of the gutter so as to retain the gutter in the installed position. The mounting means on the internal wall of the gutter may be in the form of a raised elongated rib which in the installed position is disposed within the recess and inhibited from removal by said projections. Preferably, the projections are hook-like elements pressed or punched out of the gutter mounting section.

The mounting bracket may further include a plurality of access apertures in the gutter mounting section for providing access to the attachment section when it is being attached to the building.

Preferred embodiments of the invention will hereinafter be described with reference to the accompanying drawings and in those drawings :

15 Figure 1 is a schematic isometric illustration of a gutter mounting bracket according to one preferred embodiment of the present invention;

Figure 2 is a schematic side view of the bracket shown in Figure 1 and a gutter in an installed position.

Figures 3 and 4 are side views of gutter mounting brackets according to other embodiments of the present invention:

25 Figure 5 is a schematic view of a gutter suitable for use with the brackets shown in
Figures 3 and 4;

Figures 6 and 7 are schematic views of a bracket and gutter according to another embodiment of the invention; and

Figures 8 and 9 are schematic views of a gutter and bracket according to further

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embodiments of the invention.

Referring to Figures 1 and 2 there is shown a mounting bracket 10 for a gutter 20 for buildings. As shown in Figure 2 the gutter 20 includes a generally channel shaped body 22 for collecting water with an internal wall 23 having mounting means 24 thereon.

5 The mounting bracket 10 includes an elongated bracket body 12 which includes an attachment section 14 which is attachable to the building which as shown in this example is fascia 60 and a gutter mounting section. It could be also attached to other parts of the building such as the wall or rafter. The gutter mounting section including a plurality of

10 gutter support elements arranged along the gutter mounting section and aligned so as to correspond to a fall required when the gutter is in an installed position.

The elongated bracket body includes a generally U-shaped portion one leg thereof being the attachment section 14 and the other leg thereof being the gutter mounting section

15 15. The legs of the U-shaped portion are spaced apart so as to provide a recess 13 therebetween for receiving part of the internal wall of the gutter therein when the gutter is in the installed position. The free end 17 of gutter mounting section 15 is inclined with respect to the plane of the section providing a lead-in guide when installing the gutter.

20 The gutter support elements include projections 26 which extend into the recess 13 and are adapted to cooperate with the mounting means on the internal wall of the gutter so as to retain the gutter in the installed position. The mounting means on the internal wall of the gutter is a raised elongated rib 24 which in the installed position is disposed within the recess and inhibited from removal by said projections. Because section 15 extends well

25 into the gutter when installed this reduces the prospect of uplift of the gutter. Furthermore, if desired, high tensile rods 28 may be provided at spaced intervals along the gutter for increased stability.

30 The projections are hook-like elements pressed or punched out of the gutter mounting section. A plurality of access apertures 27 are provided in the gutter mounting section for providing access to the attachment section when it is being attached to the

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building. Below each aperture 27 is a bleed hole 18 for enabling water to escape from the recess 13.

Referring to Figures 3 to 5 there is shown two further forms mounting bracket 40
5 and a gutter 41. The mounting bracket 40 includes a sheet having mounting projections 45
thereon. The sheet is tapered from one end to the other and adapted to be secured to a wall
or fascia of the building with the mounting projections 45 being aligned so as correspond
to the fall required in the liquid collecting section of the gutter assembly. It will be
appreciated that by aligning the lower edge of the sheets shown in Figures 3 and 4 with an
10 edge of the fascia, the mounting projections will be inclined relative to that edge. That is,
a line extending through the projections from one end of the sheet to the other will
conform to the required fall of the liquid collecting section of the guttering assembly. The
gutter 41 as shown in Figure 5 includes a trough like channel 50 having an internal side
wall 51 which can be mounted to the mounting projections 45 so that in an installed
15 position the liquid collecting section is disposed at the selected fall of gutter assembly.

The mounting projections 45 are triangular or square shaped hook like elements pressed or punched out of the mounting section. The hook-like elements are adapted to cooperate with a hook shaped edge portion 52 on internal side wall at the upper edge thereof so that the gutter can be attached to the mounting section. Strap elements (not shown) may be disposed along the length of the guttering to support the gutter particularly when it contains water.

Referring to Figures 6 to 8 there is shown another form of mounting bracket and guttering according to the present invention. In this particular form there is provided a mounting bracket 32 and gutter 70 two forms of which are illustrated in Figures 8(a) and 8(b). The mounting bracket 32 is in the form of a sheet which is adapted to be secured to a wall or fascia of a building by fastenings which cooperate with mounting apertures 35. The upper edge of the sheet has a spring clip section 34 thereon which is adapted to receive coupling section 73 on the gutter 70. As shown the coupling section can be in the form of a protuberance 73 or hook shaped flange 76. The coupling section 34 is adapted to snap fit

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into the clip section 75.

In the embodiment of Figures 9 and 10 the mounting bracket 82 has a U-shaped flange formed along its upper edge which is adapted to receive a hook like coupling 5 section 85 on the gutter (Figure 11).

Finally, it is to be understood that various alterations, modifications and/or additions may be incorporated into the various constructions and arrangements of parts without departing from the spirit or ambit of the invention.

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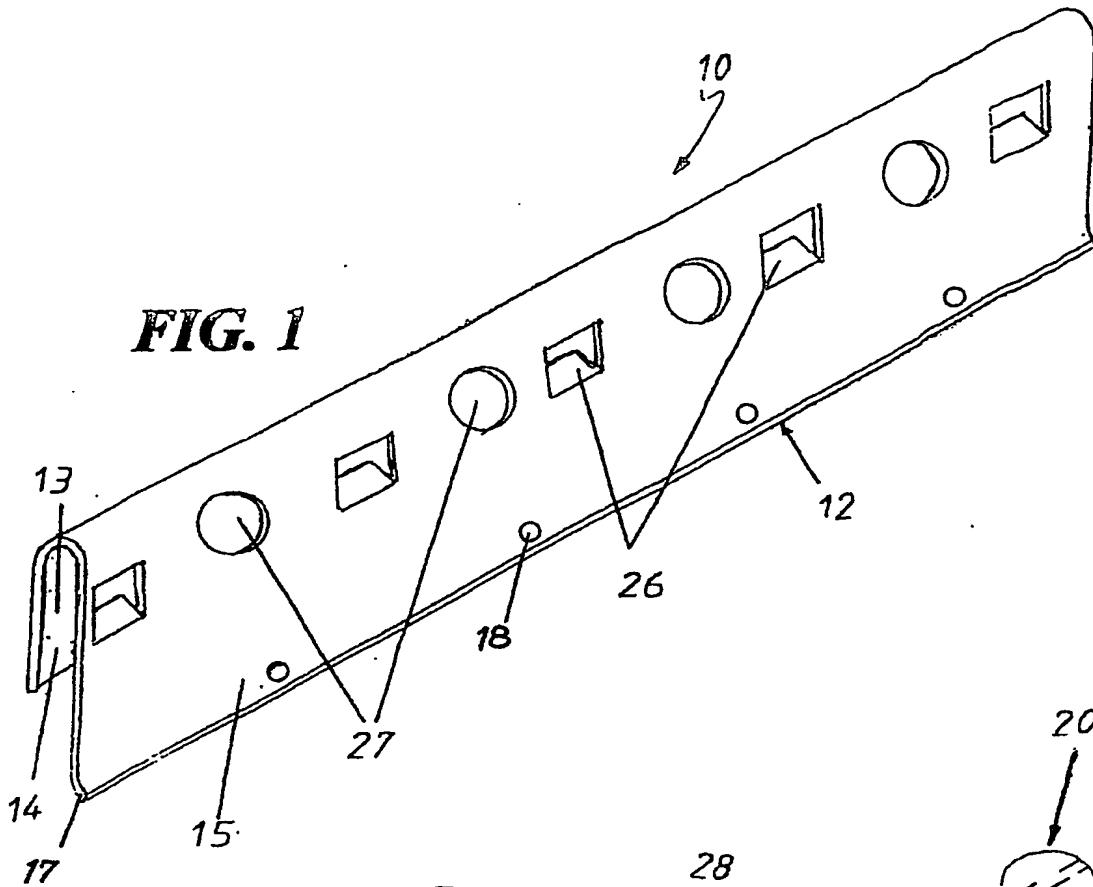
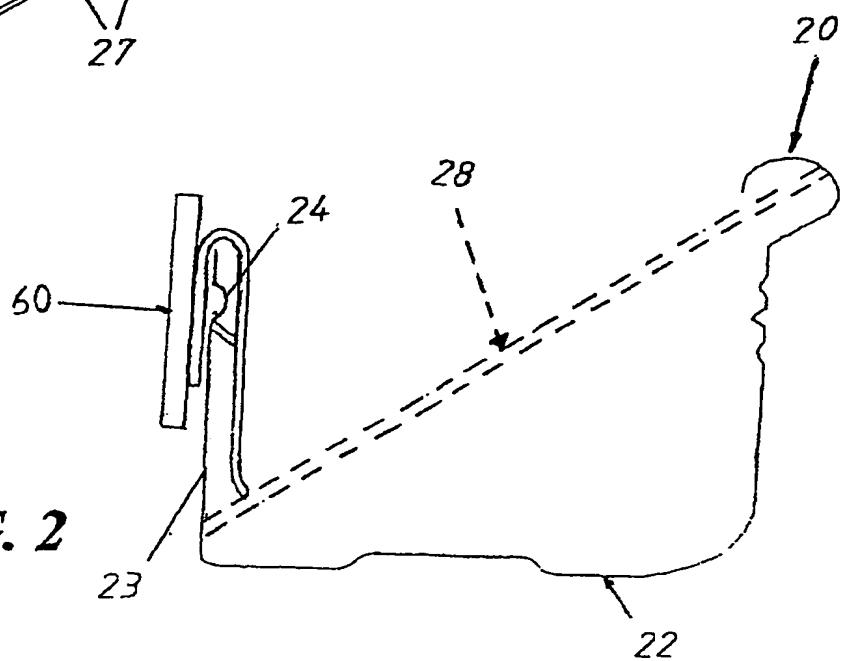
THE CLAIMS :

1. A mounting bracket for a gutter for buildings, the gutter including a generally channel or trough shaped body for collecting water with an internal wall having mounting means thereon, the mounting bracket including an elongated bracket body which includes an attachment section which is attachable to the building and a gutter mounting section, the gutter mounting section including a plurality of gutter support elements arranged along the gutter mounting section and aligned so as to correspond to a fall required when the gutter is in an installed position.
2. A mounting bracket according to claim 1 wherein said elongated bracket body includes a generally U-shaped portion one leg thereof being the attachment section and the other leg thereof being the gutter mounting section, the legs of the U-shaped portion being spaced apart so as to provide a recess therebetween for receiving part of the internal wall of the gutter therein when the gutter is in the installed position.
3. A mounting bracket according to claim 2 wherein the gutter support elements include projections which extend into the recess and are adapted to cooperate with the mounting means on the internal wall of the gutter so as to retain the gutter in the installed position.
4. A mounting bracket according to claim 3 wherein the mounting means on the internal wall of the gutter is a raised elongated rib which in the installed position is disposed within the recess and inhibited from removal by said projections.
5. A mounting bracket according to claim 3 or claim 4 wherein said projections are hook-like elements pressed or punched out of the gutter mounting section.
6. A mounting bracket according to any one of claims 2 to 5 further including a plurality of access apertures in the gutter mounting section for providing access to the attachment section when it is being attached to the building.

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FIG. 1**FIG. 2**

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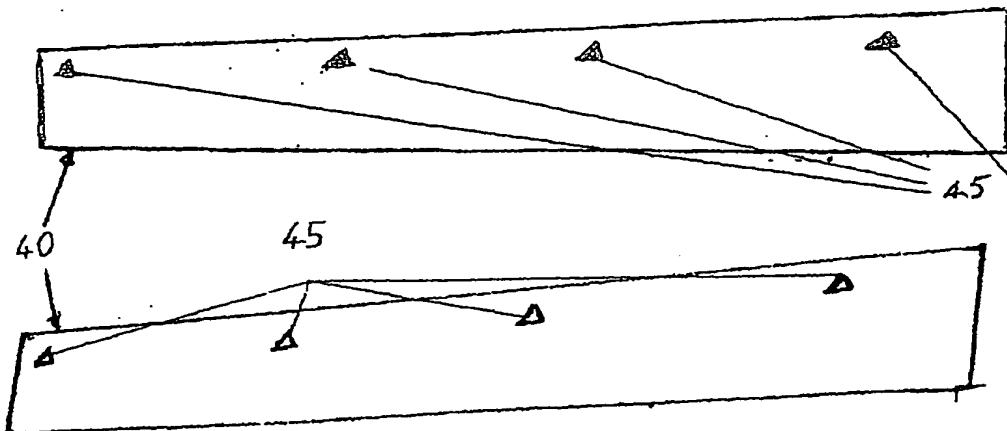
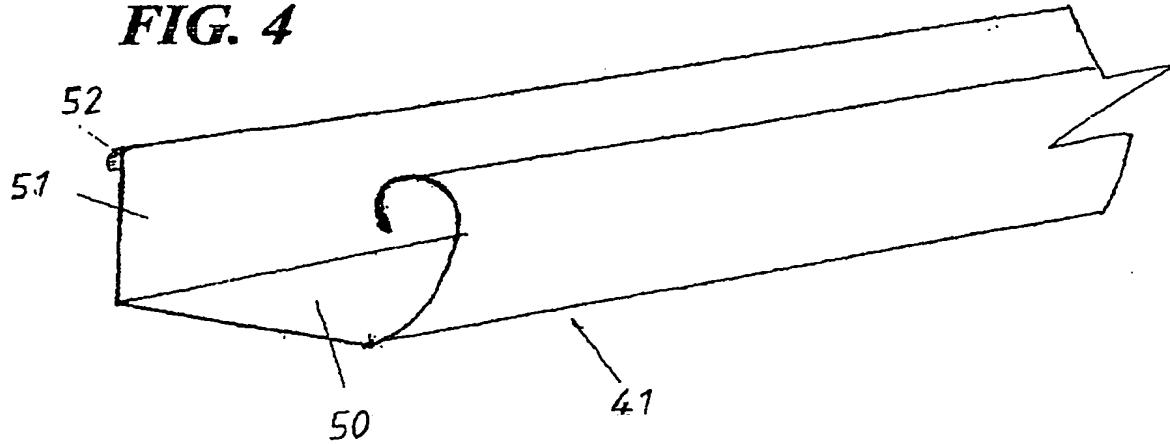
FIG. 3**FIG. 4****FIG. 5**

FIG. 6

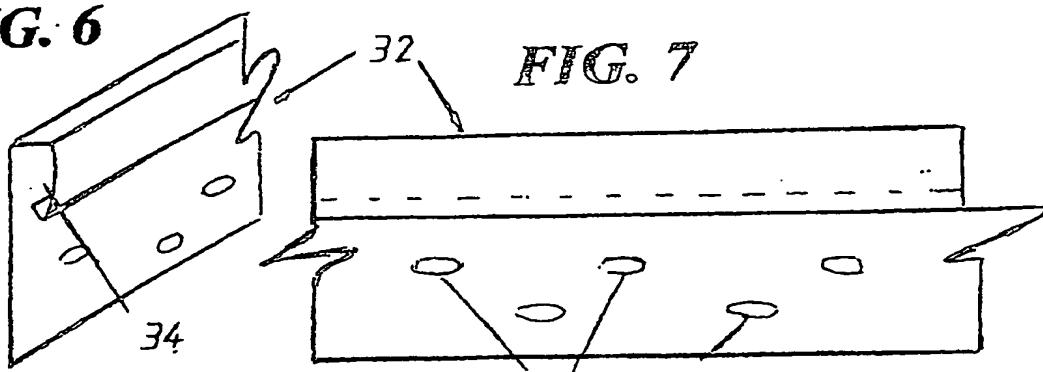


FIG. 8

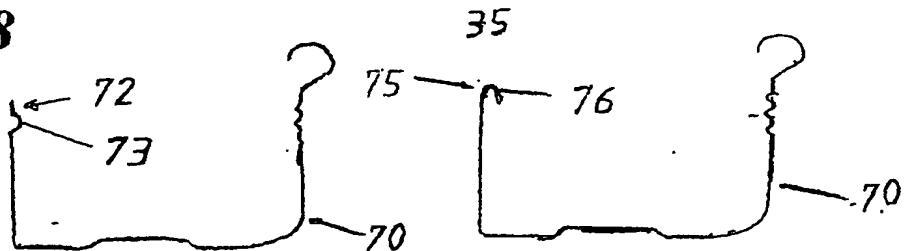


FIG. 9

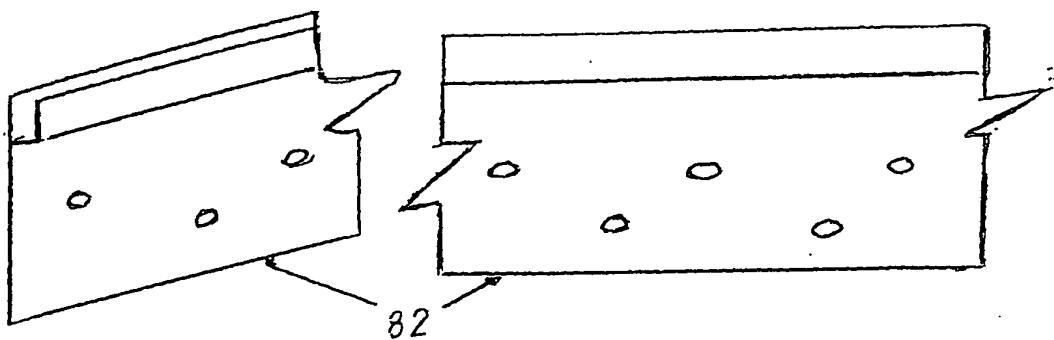


FIG. 10

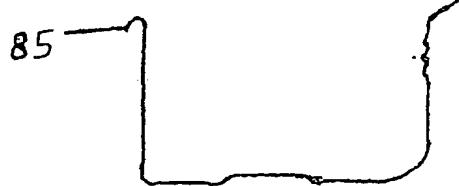


FIG. II

INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER		
Int. Cl. 7: E04D 13/072		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) REFER ELECTRONIC DATA BASE CONSULTED BELOW		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched AU: IPC E04 13/072, 13/06		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) DWPI: keywords; E04D/-, gutter, attach, install, bracket, mount, support, connect, hang, backing, fall, slop, inclin.		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	AU 32112/71 A (R. H. LIETZKE & SON PTY LTD) 8 February 1973 See figures.	1
A	AU 24977/88 A (COWELLS GROUP LIMITED) 11 May 1989 See figures.	
A	GB 2364339 A (CDS MARKETING LIMITED) 23 January 2002 See figures.	
A	WO 2002090686 A1 (TAXBOL et al) 14 November 2002 See figures.	
<input type="checkbox"/> Further documents are listed in the continuation of Box C		<input checked="" type="checkbox"/> See patent family annex
<p>* Special categories of cited documents:</p> <ul style="list-style-type: none"> "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family 		
Date of the actual completion of the international search 11 June 2004	Date of mailing of the international search report 22 JUN 2004	
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized officer VINCE BAGUSAUSKAS Telephone No : (02) 6283 2110	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU2004/000500

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member
AU	32112/71	NIL
AU	24977/88	NIL
GB	2364339	NIL
WO	02/090686	EP 1387916

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX